

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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COMMUNICATIONS SECTION

In the Matter of)
)
Amendment of Part 90 of the) PR Docket No. 93-61
Commission's Rules to Adopt)
Regulations for Automatic)
Vehicle Monitoring Services)

DOCKET FILE COPY ORIGINAL

To: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission's Rules, the Association of American Railroads ("AAR"), by its attorneys, hereby opposes the "Petitions for Reconsideration" filed by The Part 15 Coalition ("The Coalition") and Metricom, Inc./Southern California Edison Company ("Metricom-Edison") in the above-captioned proceeding. In support of this opposition, the following is shown:

AAR is a voluntary, non-profit organization composed of member railroad companies operating in the United States, Canada and Mexico. These railroad companies generate 97% of the total operating revenues of all railroads in the United States. The AAR is the joint representative and agent of these railroads in connection with federal regulatory matters of common concern to the industry as a whole, including matters pertaining to the regulation of communications. In addition, AAR functions as the frequency coordinator with respect to applications by the member railroads for licenses in the Private Land Mobile Radio Service. The AAR has completed and the railroads are currently concluding

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the implementation of an industry standard relating to automatic equipment identification ("AEI") technology. AAR acts as the central point for FCC licensing of these systems. By the time the railroads' AEI program is completed, there will be over 1.4 million rail vehicles equipped with AEI tags and 3,000 to 5,000 tag readers along the thousands of miles of track and in terminals throughout the United States and Canada. The railroads' AEI system is an invaluable tool in locating and tracking the nation's rolling stock and helps promote the efficient progress of rail transport. AAR is concerned that some of the proposals contained in the Petitions for Reconsideration filed by The Coalition and Metricom-Edison^{1/} would inhibit the effective functioning of AEI systems nationwide.

A. The Part 15 Coalition Petition for Reconsideration

The Petition for Reconsideration filed by The Coalition made two proposals which concern the railroads. Although The Coalition acknowledged that, "Part 15 devices should be able to co-exist with... 'tag reader' non-multilateration systems," it

^{1/} In addition to responding to the petitions filed by The Coalition and Metricom-Edison, AAR notes the April 20, 1995 letter from Safetran Systems Corporation ("Safetran") in its capacity as a supplier of Part 15 radio equipment. In that letter, Safetran alleges that AAR has chosen not to be concerned with the issue of interference limits for Part 15 devices in the 902-928 MHz band because AAR has "another agenda." See Safetran letter at 2-3. Suffice it to say that AAR's "agenda" from the outset in this proceeding has been well known and clearly stated, namely, to ensure the continued viability of the railroad industry's investment in its nationwide AEI tag reader system.

urged the Commission to either reduce the power limitation for non-multilateration systems to one watt or to limit the operation of such systems to within fifty meters of a highway toll plaza or rail siding.^{2/} AAR opposes both the power limit and the geographic limit advanced by The Coalition.

1. The One Watt Power Limit Proposal

The Commission announced its intention in the recent Report and Order to limit the peak ERP of non-multilateration systems to 30 watts over the licensee's authorized bandwidth.^{3/} In its Petition for Reconsideration, Amtech Systems Corporation ("Amtech"), the railroad industry's equipment vendor for AEI systems, described the practical difficulties posed by the 30 watt limit:

[t]he 30 watt ERP limit adopted in the Order unnecessarily restricts the users of non-multilateration systems. For instance, the monitoring of rail cars in high-speed multiple track situations requires the use of non-conventional antennas. Between closely-spaced rail tracks, safety regulations limit the region for mounting structures, including antennas, to very close to the ground. At high rail car speeds, an antenna with an extended near field pattern is required, which results in a high gain in the far field. This antenna is mounted on the ground and pointed upward at an angle of 45 degrees. This extended near field zone results in an antenna gain higher than normally used in other applications. The radiated power near the ground at some distance from the antenna is, however, very much reduced. Away from the antenna and at a height of two meters, the power

2/ The Part 15 Coalition Petition for Reconsideration in PR Docket 93-61, filed April 24, 1995, at 18.

3/ Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, Report and Order in PR Docket No. 93-61 at 18 (released February 6, 1995) (hereafter "Report and Order").

generated by this antenna is reduced by 50 dB from what an antenna of equivalent gain would produce if the antenna were mounted at a height of 15 meters. Thus, the unconditional limit of 30 watts ERP is overly restrictive.^{4/}

As the Amtech illustration effectively demonstrates, because the limit of 30 watts ERP poses some practical difficulties, any reduction in permissible ERP below that level could cause a detriment to the railroads' AEI systems that have already been deployed. Such a reduction would require the re-engineering at significant expense to the nearly 1500 AEI readers that are currently deployed and functioning. These systems represent major investments in terms of time, research and money. These readers should not be subject to technical limits which inhibit their operating abilities. To date, AEI systems have been able to coexist successfully with Part 15 devices in the 902-928 MHz bands. The Coalition has offered no evidence to suggest otherwise or that would warrant further reducing the power limit for non-multilateration systems.

2. The Fifty Meter Geographic Limit

The Coalition also failed to present any evidence to support its request that the operation of AEI systems be limited to within 50 meters of a highway toll plaza or rail siding. Such a limit would be overly burdensome and restrictive and would unnecessarily hamper the operational flexibility of tag reader technology. Railroad use of tag readers extends geographically

^{4/} Amtech Petition for Reconsideration in PR Docket 93-61, filed April 24, 1995, at 11.

far beyond rail sidings. Currently, the railroads have AEI tags on board trucks transporting intermodal containers in and out of the terminal gates equipped with AEI readers, on intermodal cranes that move containers from vehicle to vehicle or from vehicle to rail, by rail sidings and main lines to track rolling stock and also as hand-held readers that are used within the rail yards. This widespread use of tag readers promotes optimal resource management by the railroads. The illogical restriction of the railroads' use of tag readers would cut off a valuable source of information. The proposed geographical limit, therefore, would unduly constrain railroad use of AEI technology and would deprive the railroads of the practical versatility that this technology offers.

B. The Metricom-Edison Petition for Reconsideration

AAR opposes the Metricom-Edison proposal to extend to non-multilateration systems the presumption of non-interference from Part 15 devices contained in Section 90.361 of the Commission's Rules. Currently the presumption of non-interference applies only to multilateration systems. As the Commission made clear in the Report and Order, the rationale for applying the presumption to multilateration systems does not extend to non-multilateration systems.

In its Report and Order the Commission explained the distinction between multilateration and non-multilateration systems in their relationship to Part 15 devices. It stated

that, "[b]ecause Part 15 devices operate at extremely low power and each has a limited range of operation, the record indicates that they can coexist more easily with non-multilateration systems, which also operate with relatively short range."^{5/}

By contrast, the Commission noted the concerns expressed by the Part 15 devices regarding sharing with multilateration systems.^{6/} As the record compiled in this proceeding demonstrates, the possibility of interference from Part 15 devices to multilateration devices is real.^{7/} The Commission adopted Section 90.361 to address this situation and to accommodate the concerns of the Part 15 users. The presumption was itself unusual in the context of the secondary status of Part 15 devices, but the Commission viewed it as necessary to reconcile the views expressed on this subject.

There has been no comparable documentation of interference problems between Part 15 devices and non-multilateration systems. Indeed, as Section 15.5 of the Commission's Rules clearly states, Part 15 devices operate "subject to the condition that no harmful interference is caused and that interference must be accepted."^{8/} Any change in this status through the addition of another layer of regulation would needlessly interfere with the

^{5/} Report and Order at 18.

^{6/} Id. at 21.

^{7/} In Reply Comments submitted on July 29, 1993, AAR noted the significant and numerous concerns expressed by a variety of Part 15 operators and equipment manufacturers.

^{8/} 47 C.F.R. § 15.5.

relations between the Part 15 devices and the non-multilateration systems.

C. Conclusion

The railroads' development and operation of AEI systems promotes efficient use of the nation's mobile resources and is a critical tool for efficient service to the public and to corporate profitability. It will play an important role in the development of Intelligent Transportation Systems ("ITS"). The concerns raised by the above-mentioned petitions are not supported by facts and should not be the basis for imposing further restrictions on non-multilateration systems.

Respectfully Submitted,

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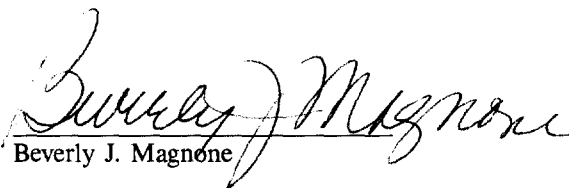
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